

AMENDMENTS TO THE CLAIMS

1. (previously presented) A process for the manufacture of an optical transmission element having at least one optical waveguide with a slot element surrounding the at least one optical waveguide and defining an interior space, the process comprising the steps of:
applying a filling compound intermittently to the at least one optical waveguide, wherein the filling compound is applied in a liquid state;
feeding the at least one optical waveguide into an extruder to form a slot element around the at least one optical waveguide; wherein the filling compound expands within the slot element, thereby forming a plurality of dry, compressible elements that are disposed about the at least one optical waveguide.
2. (previously presented) The process according to claim 1, wherein the filling compound is selected from the group consisting of polyurethane based materials and silicone based materials.
3. (previously presented) The process according to claim 1, wherein the slot element cross-section is not being changed by the expanding of the filling compound.
4. (previously presented) The process according to claim 1, wherein the filling compound begins to expand within the slot element after leaving the extruder.
5. (previously presented) The process according to claim 4, wherein a delay period between applying the filling compound and the beginning of expansion of the filling compound is between about one second and about 300 seconds.

6. (previously presented) The process according to claim 1, wherein the expansion of the filling compound is aided by heat.

7. (previously presented) An optical transmission element, comprising:

at least one optical waveguide being disposed within a slot element, wherein the slot element defines an interior space therein;

a plurality of dry and compressible filling elements, which are arranged in the interior space and are formed by material expanding within the interior space, where a defined contact pressure is applied by the filling elements against the slot element and against the at least one optical waveguide for anchoring them in longitudinal direction of the transmission element and where position changes of the at least one optical waveguide are possible;

wherein the filling elements are disposed about the at least one optical waveguide and completely fill respective cross-sections of the interior space of the slot element.

8. (previously presented) An optical transmission element according to claim 7, wherein the filling compound is selected from the group of consisting of polyurethane based materials and silicone based materials.

9. (previously presented) An optical transmission element according to claim 7, wherein the filling elements are applied to the at least one optical fiber in a liquid state.

10. (previously presented) An optical transmission element according to claim 7, wherein a plurality of filling elements are arranged in the longitudinal direction of the optical transmission element with intermediate interstices therebetween

not being occupied by filling elements.

11. (previously presented) An optical transmission element according to claim 7, wherein the filling elements further including a material that swells during water penetration.

12. (previously presented) An optical transmission element according to claim 7, wherein the filling elements are formed so that they can be removed from the at least one optical waveguide easily and completely without using additional tools.